

HFS4

AC SOLID RELAY



Features

- No noise
- High electrical resistance
- Built-in RC protection circuit
- TTL circuit driver compatibility
- Output zero-crossing and random trigger are optional
- Rated load capacity: 2A/280VAC
- Dielectric strength: 3000VAC

RoHS compliant

Performance parameters

Input	
Rated voltage	5VDC, 12VDC, 24VDC
Ensure on voltage	80%Un
Ensure off voltage	1.2VDC(5V/12V specifications)
	2.4VDC(24V specifications)
Maximum reverse polarity Voltage	3V
Input current	50mA max.(0D:4mA to 50mA DC)
	20mA max.(Voltage control type)
Single channel power consumption	0.3W max.
Number of Control Channels	1
Working status	-
Wiring polarity requirements	Polarized
Output	
Operational method	Random switching/Zero-crossing switching
Switching type	1NO
Load voltage range	24VAC to 280VAC
Rated load current	2A @25°C
	0.5A @80°C
Minimum off-state dv/dt	200V/μs
Min. load current	20mA
Non-repetitive surge current(10ms)	30A
Maximum operating current	2A
Max. I ² T(10ms,A ² s)	4.5
Operate time	Random type: ≤1 ms
	Zero-crossing type: ≤1/2 cycle + 1 ms
Release time	≤1/2cycle+1ms
Maximum on-state voltage drop	1.5Vrms
Maximum off-state leakage current	1.5mA(@220VAC)
Protection circuit	RC circuit



HONGFA INDUSTRIAL ELECTRONIC MODULE

ISO9001,IATF16949,ISO14001,OHSAS18001,IECQ QC 080000 CERTIFIED

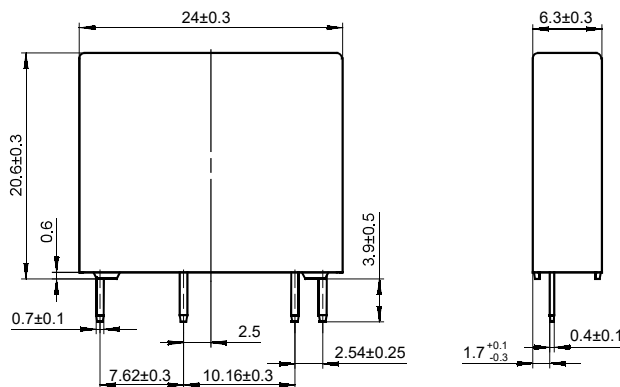
2025 Rev. 1.00

Other parameters		
Operating temperature		-30°C to 80°C
Storage temperature		-30°C to 100°C
Moisture		35% to 85%RH
Weight		Approximately 5g
Ingress protection		-
Vibration		10Hz to 60Hz, 1.5mm DA
		60Hz to 150Hz, 19.6m/s ²
Shock		980m/s ²
Dielectric withstand voltage		Between input and output channels: 3000VAC min.
Insulation resistance		Between input and output: 1000MΩ min.(@500VDC)
Rated impulse withstand voltage(1.2/50us)		4kV min.
Standards Compliance		IEC62314, GB/T 36640-2018, UL508
Product installation and maintenance		
Installation		PCB mounting

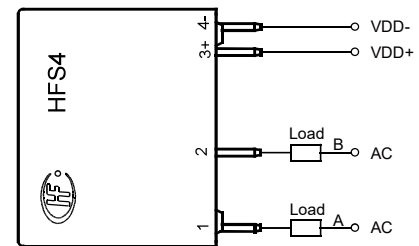
Outline Dimension Drawing,Circuit diagram

Unit: mm

Outline Dimension Drawing



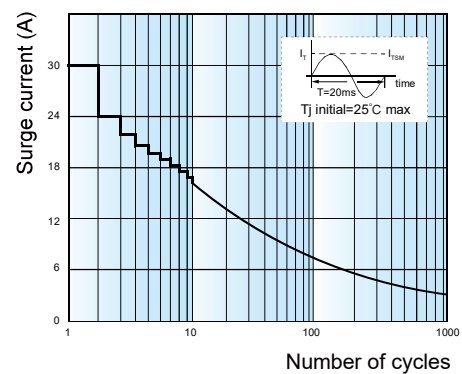
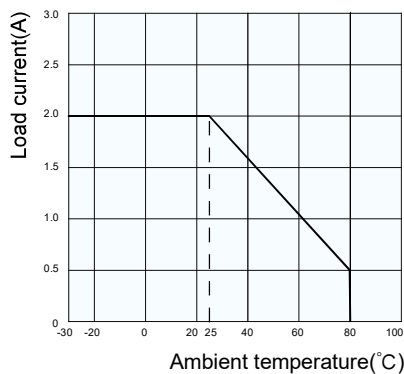
Circuit diagram



Load can be wired in position A or B

Performance graphs

Surge peak onstate current versus number of cycles



Ordering information

	HFS4 /	12D	-1M	(XXX)
Type				
Rated input voltage	5D: 4~6VDC 12D: 9.6~14.4VDC 24D: 19.2~28.8VDC 0D: 4~50mA DC(Current-triggered type)			
Trigger mode	0M: Zero-crossing triggering	1M: Triggered randomly		
Special code⁽¹⁾	Nil: Standard	XXX: Customer special requirement		

Notes: (1) If the customer has special requirements, after evaluation by our company, identification will be provided in the form of a characteristic number.

Disclaimer:

The specification is for reference only. See "Terminology and Guidelines" for more information. Specifications subject to change without notice. We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact Hongfa for the technical service. However, it is the user's responsibility to determine which product should be used only.